Yiqian Wu

(+86) 188-8892-5230 | Feb 15, 2000 | onethousand1250@gmail.com | https://onethousandwu.com | oneThousand1000 | Hangzhou, China | 0000-0002-2432-809X

Education

▷ Ph.D. in Computer Science and Technology *Hangzhou, China*

Zhejiang University Sep. 2021 - Exp. Jun. 2026

State Key Lab of CAD&CG

▷ B.S. in Computer Science and Technology *Hangzhou, China*

Zhejiang University Sep. 2017 - Jun. 2021

Chu Kochen Honors College

Publications

3DPortraitGAN: Learning One-Quarter Headshot 3D GANs from a Single-View Portrait Dataset with Diverse Body Poses *Preprint*

Preprint 2023

- **Yiqian Wu**, Hao Xu, Xiangjun Tang, Hongbo Fu, Xiaogang Jin.
- We propose 3DPortraitGAN, the first 3D-aware one-quarter headshot portrait generator that learns a canonical 3D avatar distribution from our dataset with body pose self-learning. Our model can generate view-consistent portrait images from all camera angles with a canonical one-quarter headshot 3D representation.
- *Arxiv*: https://arxiv.org/abs/2307.14770

LPFF: A Portrait Dataset for Face Generators Across Large Poses *ICCV*

IEEE/CVF International Conference on Computer Vision (ICCV), 2023 2023

- **Yiqian Wu**, Jing Zhang, Hongbo Fu, Xiaogang Jin.
- We present *LPFF*, a novel large-pose Flickr face dataset comprised of 19,590 high-quality real large-pose portrait images. We utilize our dataset to train a 2D face generator that can process large-pose face images, as well as a 3D-aware generator that can generate realistic human face geometry. We also propose a new FID measure for pose-conditional 3D-aware generators.
- *Project Page*: http://www.cad.zju.edu.cn/home/jin/iccv2023/iccv2023.htm
- *Arxiv*: https://arxiv.org/abs/2303.14407
- *Dataset*: https://github.com/oneThousand1000/LPFF-dataset

HairMapper: Removing Hair from Portraits Using GANs *CVPR*

IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2022 2022

- **Yiqian Wu**, Yongliang Yang, Xiaogang Jin.
- We introduce an automatic method to remove hair from real portrait images. It can generate a new portrait without hair while preserving facial identity. We develop a novel "female-male-bald" pipeline to generate bald female data that does not exist in the StyleGAN latent space and use a fully connected network to find the hair removal path in the latent space. We create the first dataset that contains 6,000 high-quality portrait images with the hair removed.
- *Project Page*: www.cad.zju.edu.cn/home/jin/cvpr2022/cvpr2022.htm
- *Source Code*: github.com/oneThousand1000/HairMapper
- *Dataset*: github.com/oneThousand1000/non-hair-FFHQ

Coarse-to-Fine: Facial Structure Editing of Portrait Images via Latent Space Classifications *SIGGRAPH*

ACM Transactions on Graphics (Proc. of Siggraph 2021), 40(4): Article 46. 2021

- **Yiqian Wu**, Yongliang Yang, Qinjie Xiao, Xiaogang Jin.
- We present the first automatic chin editing method for portrait images. It can generate a new facial structure without double chin while consistently leaving other regions unchanged. We introduce a novel facial editing approach at the structural level based on coarse-to-fine separation boundary training, which allows direct editing in the latent space of the portrait image with plausible semantic manipulation and facial identity preservation. We create the first large-scale chin editing dataset to facilitate future research. The dataset contains 13,990 pairs of realistic portrait images with and without a double chin.
- *Project Page*: www.cad.zju.edu.cn/home/jin/sig2021/sig2021.htm
- *Source Code*: github.com/oneThousand1000/Facial-Structure-Editing-of-Portrait-Images-via-Latent-Space-Classifications
- *Dataset*: github.com/oneThousand1000/coarse-to-fine-chin-editing

Deep Real-time Volumetric Rendering Using Multi-feature Fusion *SIGGRAPH*

ACM Transactions on Graphics (Proc. of Siggraph 2023), Los Angeles, 6-10 August, 2023. 2023

- Jinkai Hu, Chengzhong Yu, Hongli Liu, Ling-qi Yan, **Yiqian Wu**, Xiaogang Jin
- We present Multi-feature Radiance-Predicting Neural Networks (MRPNN), a practical framework with a lightweight feature fusion neural network for rendering high-order scattered radiance of participating media in real time.
- *Project Page*: http://www.cad.zju.edu.cn/home/jin/sig20231/SigMRPNN2023.htm

EyelashNet: A Dataset and A Baseline Method for Eyelash Matting *SIGGRAPH Asia*

ACM Transactions on Graphics (Proc. of Siggraph Asia'2021), 2021, 40(6): Article 217. 2021

- Qinjie Xiao, Hanyuan Zhang, Zhaorui Zhang, **Yiqian Wu**, Luyuan Wang, Xiaogang Jin, Xinwei Jiang, Yongliang Yang, Tianjia Shao, Kun Zhou.
- The first eyelash matting dataset which contains 5,400 high-quality eyelash matting data captured from real world and 5,272 virtual eyelash matting data created by rendering avatars.
- *Project Page*: www.cad.zju.edu.cn/home/jin/siga2021/siga2021.htm
- *Dataset*: https://github.com/QinjieXiao/EyelashNet

iOrthoPredictor: Model-guided Deep Prediction of Teeth Alignment *SIGGRAPH Asia*

ACM Transactions on Graphics (Proc. of Siggraph Asia 2020), 39(6), Article 216. 2020

- Lingchen Yang, Zefeng Shi, **Yiqian Wu**, Xiang Li, Kun Zhou, Hongbo Fu, Youyi Zheng.
- A novel system to visually predict teeth alignment in photographs. The system takes a frontal face image of a patient with visible mal-positioned teeth along with a corresponding 3D teeth model as input, and generates a facial image with aligned teeth, simulating a real orthodontic treatment effect.
- *Paper*: https://dl.acm.org/doi/10.1145/3414685.3417771

Awards and Honors

2021-2022	Zhejiang University-Suzhou Talent Scholarship	*Hangzhou*
2021-2022	Ph.D. Freshman Scholarship	*Hangzhou*
2021-2022	Triple A Graduate	*Hangzhou*
2021-2022	Award of Honor for Graduate	*Hangzhou*

Advisor

- Prof. Xiaogang Jin
  Ph. D, Professor, at State Key Lab of CAD&CG, Zhejiang University, Hangzhou 310058, P. R. China
  (+86) 571-88206681 jin@cad.zju.edu.cn